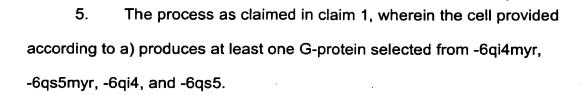
WHAT IS CLAIMED IS:

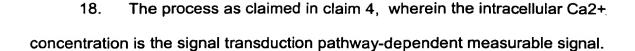
- 1. A process for identifying a chemical compound modifying the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism, wherein said process comprises the following steps:
 - a) providing at least one cell which contains at least one
 GPCR-dependent signal transduction pathway and which produces one or more than one G-protein;
 - b) providing at least one chemical compound to be studied;
 - c) contacting the cell of a) with one or more of the chemical compounds of b);
 - d) determining the quantitative or qualitative effect of the chemical compound or compounds of b) on the signal transduction pathway of the cell of a) by means of a signal transduction pathway-dependent measurable signal.
- 2. The process as claimed in claim 1, wherein the cell provided according to a) produces at least two G-proteins.
- 3. The process as claimed in claim 1, wherein the cell provided according to a) produces at least two G-proteins selected from -6qi4myr, -6qs5myr, -6qi4, -6qs5, and Gα16.
- 4. The process as claimed in claim 2, wherein the cell provided according to a) produces at least two G-proteins selected from -6qi4myr, -6qs5myr, -6qi4, -6qs5, and Gα16.



- 6. The process as claimed in claim 2, wherein the cell provided according to a) produces at least one G-protein selected from -6qi4myr, -6qs5myr, -6qi4, and -6qs5.
- 7. The process as claimed in claim 1, wherein the cell provided according to a) produces at least one protein having an amino acid sequence selected from SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, and SEQ ID NO:8.
- 8. The process as claimed in claim 2, wherein the cell provided according to a) produces at least one protein having an amino acid sequence selected from SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, and SEQ ID NO:8.
- 9. The process as claimed in claim 3, wherein the cell provided according to a) produces at least one protein having an amino acid sequence selected from SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, and SEQ ID NO:8.
- 10. The process as claimed in claim 4, wherein the cell provided according to a) produces at least one protein having an amino acid sequence selected from SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, and SEQ ID NO:8.

Attorney Dock t No.: 02481.1745-00

- 11. The process as claimed in claim 5, wherein the cell provided according to a) produces at least one protein having an amino acid sequence selected from SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, and SEQ ID NO:8.
- 12. The process as claimed in claim 6, wherein the cell provided according to a) produces at least one protein having an amino acid sequence selected from SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, and SEQ ID NO:8.
- 13. The process as claimed in claim 1, wherein the cell provided according to a) is the cell of a vertebrate species, an insect species, a yeast species, or a *C. elegans*.
- 14. The process as claimed in claim 13, wherein the cell provided is a HeLa, 293, COS or CHO cell, or a cell of *Saccharomyces cerevisiae*.
- 15. The process as claimed in claim 1, wherein the intracellular Ca2+ concentration is the signal transduction pathway-dependent measurable signal.
- 16. The process as claimed in claim 2, wherein the intracellular Ca2+ concentration is the signal transduction pathway-dependent measurable signal.
- 17. The process as claimed in claim 3, wherein the intracellular Ca2+ concentration is the signal transduction pathway-dependent measurable signal.



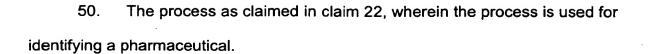
- 19. The process as claimed in claim 5, wherein the intracellular Ca2+ concentration is the signal transduction pathway-dependent measurable signal.
- 20. The process as claimed in claim 6, wherein the intracellular Ca²⁺ concentration is the signal transduction pathway-dependent measurable signal.
- 21. The process as claimed in claim 7, wherein the intracellular Ca²⁺ concentration is the signal transduction pathway-dependent measurable signal.
- 22. The process as claimed in claim 8, wherein the intracellular Ca²⁺ concentration is the signal transduction pathway-dependent measurable signal.
- 23. The process as claimed in claim 9, wherein the intracellular Ca²⁺ concentration is the signal transduction pathway-dependent measurable signal.
- 24. The process as claimed in claim 10, wherein the intracellular Ca²⁺ concentration is the signal transduction pathway-dependent measurable signal.
- 25. The process as claimed in claim 11, wherein the intracellular Ca²⁺ concentration is the signal transduction pathway-dependent measurable signal.

- 26. The process as claimed in claim 12, wherein the intracellular Ca²⁺ concentration is the signal transduction pathway-dependent measurable signal.
- 27. The process as claimed in claim 13, wherein the intracellular Ca²⁺ concentration is the signal transduction pathway-dependent measurable signal.
- 28. The process as claimed in claim 14, wherein the intracellular Ca²⁺ concentration is the signal transduction pathway-dependent measurable signal.
- 29. The process as claimed in claim 1, wherein the process is used for identifying a pharmaceutical.
- 30. The process as claimed in claim 2, wherein the process is used for identifying a pharmaceutical.
- 31. The process as claimed in claim 3, wherein the process is used for identifying a pharmaceutical.
- 32. The process as claimed in claim 4, wherein the process is used for identifying a pharmaceutical.
- 33. The process as claimed in claim 5, wherein the process is used for identifying a pharmaceutical.

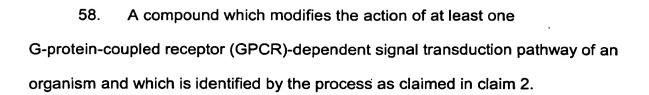
Att rn y Dock t No.: 02481.1745-00

- 34. The process as claimed in claim 6, wherein the process is used for identifying a pharmaceutical.
- 35. The process as claimed in claim 7, wherein the process is used for identifying a pharmaceutical.
- 36. The process as claimed in claim 8, wherein the process is used for identifying a pharmaceutical.
- 37. The process as claimed in claim 9, wherein the process is used for identifying a pharmaceutical.
- 38. The process as claimed in claim 10, wherein the process is used for identifying a pharmaceutical.
- 39. The process as claimed in claim 11, wherein the process is used for identifying a pharmaceutical.
- 40. The process as claimed in claim 12, wherein the process is used for identifying a pharmaceutical.
- 41. The process as claimed in claim 13, wherein the process is used for identifying a pharmaceutical.

- 42. The process as claimed in claim 14, wherein the process is used for identifying a pharmaceutical.
- 43. The process as claimed in claim 15, wherein the process is used for identifying a pharmaceutical.
- 44. The process as claimed in claim 16, wherein the process is used for identifying a pharmaceutical.
- 45. The process as claimed in claim 17, wherein the process is used for identifying a pharmaceutical.
- 46. The process as claimed in claim 18, wherein the process is used for identifying a pharmaceutical.
- 47. The process as claimed in claim 19, wherein the process is used for identifying a pharmaceutical.
- 48. The process as claimed in claim 20, wherein the process is used for identifying a pharmaceutical.
- 49. The process as claimed in claim 21, wherein the process is used for identifying a pharmaceutical.



- 51. The process as claimed in claim 23, wherein the process is used for identifying a pharmaceutical.
- 52. The process as claimed in claim 24, wherein the process is used for identifying a pharmaceutical.
- 53. The process as claimed in claim 25, wherein the process is used for identifying a pharmaceutical.
- 54. The process as claimed in claim 26, wherein the process is used for identifying a pharmaceutical.
- 55. The process as claimed in claim 27, wherein the process is used for identifying a pharmaceutical.
- 56. The process as claimed in claim 28, wherein the process is used for identifying a pharmaceutical.
- 57. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 1.



- 59. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 3.
- 60. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 4.
- 61. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 5.
- 62. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 6.
- 63. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 7.

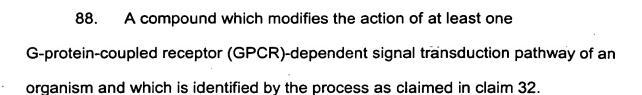
Attorney Docket No.: 02481.1745-00

- 64. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 8.
- 65. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 9.
- 66. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 10.
- 67. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 11.
- 68. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 12.
- 69. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 13.

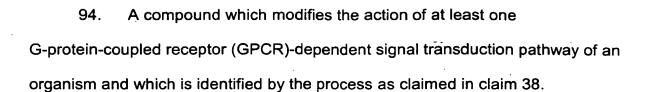
- 70. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 14.
- 71. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 15.
- 72. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 16.
- 73. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 17.
- 74. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 18.
- 75. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 19.

- 76. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 20.
- 77. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 21.
- 78. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 22.
- 79. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 23.
- 80. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 24.
- 81. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 25.

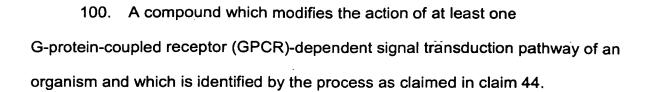
- 82. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 26.
- 83. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 27.
- 84. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 28.
- 85. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 29.
- 86. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 30.
- 87. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 31.



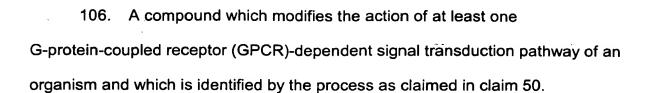
- 89. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 33.
- 90. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 34.
- 91. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 35.
- 92. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 36.
- 93. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 37.



- 95. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 39.
- 96. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 40.
- 97. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 41.
- 98. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 42.
- 99. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 43.



- 101. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 45.
- 102. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 46.
- 103. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 47.
- 104. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 48.
- 105. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 49.



- 107. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 51.
- 108. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 52.
- 109. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 53.
- 110. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism and which is identified by the process as claimed in claim 54.
- 111. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 55.

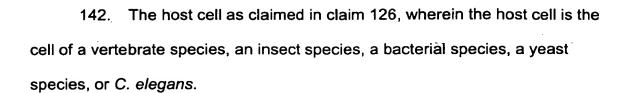


- 112. A compound which modifies the action of at least one
 G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an
 organism and which is identified by the process as claimed in claim 56.
- 113. A polynucleotide sequence coding for a polypeptide having the property of a G-protein, wherein the polypeptide sequence is selected from:
 - a) SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8;
 - b) a sequence according to a) lacking one or more amino acids;
 - c) a sequence according to a) having an additional one or more amino acids; and
 - d) an allelic variant of a sequence according to a).
- 114. A polynucleotide comprising a polynucleotide sequence selected from:
 - a) SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, the corresponding sequence complementary thereto; and
 - b) a polynucleotide sequence hybridizing with a polynucleotide sequence according to a) under stringent conditions.
- 115. The polynucleotide as claimed in claim 113, wherein the polynucleotide is part of a recombinant vector construct.
- 116. The polynucleotide as claimed in claim 114, wherein the polynucleotide is part of a recombinant vector construct.

- 117. The polynucleotide as claimed in claim 115, wherein the recombinant vector construct is an expression vector usable in eukaryotes and/or prokaryotes.
- 118. The polynucleotide as claimed in claim 116, wherein the recombinant vector construct is an expression vector usable in eukaryotes and/or prokaryotes.
- 119. The polynucleotide as claimed in claim 117, wherein the expression vector contains a constitutive and/or inducible promoter.
- 120. The polynucleotide as claimed in claim 118, wherein the expression vector contains a constitutive and/or inducible promoter.
 - 121. A host cell comprising a polynucleotide as claimed in claim 113.
 - 122. A host cell comprising a polynucleotide as claimed in claim 114.
 - 123. A host cell comprising a polynucleotide as claimed in claim 115.
 - 124. A host cell comprising a polynucleotide as claimed in claim 116.
 - 125. A host cell comprising a polynucleotide as claimed in claim 117.
 - 126. A host cell comprising a polynucleotide as claimed in claim 118.

- 127. A host cell comprising a polynucleotide as claimed in claim 119.
- 128. A host cell comprising a polynucleotide as claimed in claim 120.
- 129. The host cell as claimed in claim 121, wherein the host cell is a human cell.
- 130. The host cell as claimed in claim 122, wherein the host cell is a human cell.
- 131. The host cell as claimed in claim 123, wherein the host cell is a human cell.
- 132. The host cell as claimed in claim 124, wherein the host cell is a human cell.
- 133. The host cell as claimed in claim 125, wherein the host cell is a human cell.
- 134. The host cell as claimed in claim 126, wherein the host cell is a human cell.
- 135. The host cell as claimed in claim 127, wherein the host cell is a human cell.

- 136. The host cell as claimed in claim 128, wherein the host cell is a human cell.
- 137. The host cell as claimed in claim 121, wherein the host cell is the cell of a vertebrate species, an insect species, a bacterial species, a yeast species, or *C. elegans*.
- 138. The host cell as claimed in claim 122, wherein the host cell is the cell of a vertebrate species, an insect species, a bacterial species, a yeast species, or *C. elegans*.
- 139. The host cell as claimed in claim 123, wherein the host cell is the cell of a vertebrate species, an insect species, a bacterial species, a yeast species, or *C. elegans*.
- 140. The host cell as claimed in claim 124, wherein the host cell is the cell of a vertebrate species, an insect species, a bacterial species, a yeast species, or *C. elegans*.
- 141. The host cell as claimed in claim 125, wherein the host cell is the cell of a vertebrate species, an insect species, a bacterial species, a yeast species, or *C. elegans*.



- 143. The host cell as claimed in claim 127, wherein the host cell is the cell of a vertebrate species, an insect species, a bacterial species, a yeast species, or *C. elegans*.
- 144. The host cell as claimed in claim 128, wherein the host cell is the cell of a vertebrate species, an insect species, a bacterial species, a yeast species, or *C. elegans*.
- 145. The host cell as claimed in claim 137, wherein the cell is a HeLa, 293, COS or CHO cell, an *Escherichia coli* cell or *Saccharomyces cerevisiae* cell.
- 146. The host cell as claimed in claim 138, wherein the cell is a HeLa,293, COS or CHO cell, an *Escherichia coli* cell or *Saccharomyces cerevisiae* cell.
- 147. The host cell as claimed in claim 139, wherein the cell is a HeLa, 293, COS or CHO cell, an *Escherichia coli* cell or *Saccharomyces cerevisiae* cell.
- 148. The host cell as claimed in claim 140, wherein the cell is a HeLa, 293, COS or CHO cell, an *Escherichia coli* cell or *Saccharomyces cerevisiae* cell.



- 149. The host cell as claimed in claim 141, wherein the cell is a HeLa, 293, COS or CHO cell, an Escherichia coli cell or Saccharomyces cerevisiae cell.
- The host cell as claimed in claim 142, wherein the cell is a HeLa, 150. 293, COS or CHO cell, an Escherichia coli cell or Saccharomyces cerevisiae cell.
- The host cell as claimed in claim 143, wherein the cell is a HeLa, 293, COS or CHO cell, an Escherichia coli cell or Saccharomyces cerevisiae cell.
- 153. The host cell as claimed in claim 144, wherein the cell is a HeLa, 293, COS or CHO cell, an Escherichia coli cell or Saccharomyces cerevisiae cell.
- A method of producing a host cell, wherein a polynucleotide as claimed in claim 115 is introduced into a eukaryotic or prokaryotic cell.
- A method of producing a host cell comprising a polynucleotide sequence selected from:
 - a) SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, or the corresponding complementary sequence thereto; and
 - b) a polynucleotide hybridizing with a polynucleotide sequence according to a) under stringent conditions,
 - c) wherein a polynucleotide as claimed in claim 116 is introduced into a eukaryotic or prokaryotic cell.



- 155. A method of producing a host cell comprising a polynucleotide sequence selected from:
 - a) SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, or the corresponding complementary sequence thereto; and
 - b) a polynucleotide hybridizing with a polynucleotide sequence according to a) under stringent conditions,
 - c) wherein a polynucleotide as claimed in claim 117 is introduced into a eukaryotic or prokaryotic cell.
- 156. A method of producing a host cell comprising a polynucleotide sequence selected from:
 - a) SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, or the corresponding complementary sequence thereto; and
 - b) a polynucleotide hybridizing with a polynucleotide sequence according to a) under stringent conditions,
 - c) wherein a polynucleotide as claimed in claim 118 is introduced into a eukaryotic or prokaryotic cell.
- 157. A method of producing a host cell, comprising a polynucleotide sequence selected from:
 - a) SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, or the corresponding complementary sequence thereto; and
 - b) a polynucleotide hybridizing with a polynucleotide sequence according to a) under stringent conditions,





158. A method of producing a host cell, comprising a polynucleotide sequence selected from:

into a eukaryotic or prokaryotic cell.

- a) SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, or the corresponding complementary sequence thereto; and
- b) a polynucleotide hybridizing with a polynucleotide sequence according to a) under stringent conditions,
- c) wherein a polynucleotide as claimed in claim 120 is introduced into a eukaryotic or prokaryotic cell.
- 159. A method of using the host cell as claimed in claim 121 in a process for identifying a chemical compound modifying the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism comprising:
 - a) providing said host cell;
 - b) providing at least one chemical compound to be studied;
 - c) contacting the host cell of a) with one or more of the chemical compounds of b);
 - d) determining the quantitative or qualitative effect of the chemical compound or compounds of b) on the signal transduction pathway of the host cell of a) by means of a signal transduction pathway-dependent measurable signal.





- 160. A method of using the host cell as claimed in claim 122 in a process for identifying a chemical compound modifying the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism comprising:
 - a) providing said host cell;
 - b) providing at least one chemical compound to be studied;
 - c) contacting the host cell of a) with one or more of the chemical compounds of b);
 - d) determining the quantitative or qualitative effect of the chemical compound or compounds of b) on the signal transduction pathway of the host cell of a) by means of a signal transduction pathway-dependent measurable signal.
- 161. A method of using the host cell as claimed in claim 123 in a process for identifying a chemical compound modifying the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism comprising:
 - a) providing said host cell;
 - b) providing at least one chemical compound to be studied;
 - c) contacting the host cell of a) with one or more of the chemical compounds of b);
 - d) determining the quantitative or qualitative effect of the chemical compound or compounds of b) on the signal transduction pathway of the host cell of a) by means of a signal transduction pathway-dependent measurable signal.





- 162. A method of using the host cell as claimed in claim 124 in a process for identifying a chemical compound modifying the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism comprising:
 - a) providing said host cell;
 - b) providing at least one chemical compound to be studied;
 - c) contacting the host cell of a) with one or more of the chemical compounds of b);
 - d) determining the quantitative or qualitative effect of the chemical compound or compounds of b) on the signal transduction pathway of the host cell of a) by means of a signal transduction pathway-dependent measurable signal.
- 163. A method of using the host cell as claimed in claim 125 in a process for identifying a chemical compound modifying the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism comprising:
 - a) providing said host cell;
 - b) providing at least one chemical compound to be studied;
 - c) contacting the host cell of a) with one or more of the chemical compounds of b);
 - d) determining the quantitative or qualitative effect of the chemical compound or compounds of b) on the signal transduction pathway of the host cell of a) by means of a signal transduction pathway-dependent measurable signal.



- 164. A method of using the host cell as claimed in claim 126 in a process for identifying a chemical compound modifying the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism comprising:
 - a) providing said host cell;
 - b) providing at least one chemical compound to be studied;
 - c) contacting the host cell of a) with one or more of the chemical compounds of b);
 - d) determining the quantitative or qualitative effect of the chemical compound or compounds of b) on the signal transduction pathway of the host cell of a) by means of a signal transduction pathway-dependent measurable signal.
- 165. A method of using the host cell as claimed in claim 127 in a process for identifying a chemical compound modifying the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism comprising:
 - a) providing said host cell;
 - b) providing at least one chemical compound to be studied;
 - c) contacting the host cell of a) with one or more of the chemical compounds of b);
 - d) determining the quantitative or qualitative effect of the chemical compound or compounds of b) on the signal transduction pathway of the host cell of a) by means of a signal transduction pathway-dependent measurable signal.





- 166. A method of using the host cell as claimed in claim 128 in a process for identifying a chemical compound modifying the action of at least one G-protein-coupled receptor (GPCR)-dependent signal transduction pathway of an organism comprising:
 - a) providing said host cell;
 - b) providing at least one chemical compound to be studied;
 - c) contacting the host cell of a) with one or more of the chemical compounds of b);
 - d) determining the quantitative or qualitative effect of the chemical compound or compounds of b) on the signal transduction pathway of the host cell of a) by means of a signal transduction pathway-dependent measurable signal.
- A protein having an amino acid sequence selected from SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, and SEQ ID NO:10.
- A process for preparing a protein as claimed in claim 167 comprising:
 - a) providing a host cell;
 - b) cultivating the host cell of a) in a growth medium suitable for the host cell and inducing expression of the protein;
 - c) disrupting the cells and obtaining the cell material;
 - d) removing the protein from other proteins of the disrupted cells of c).





- 169. A method of using the protein as claimed in claim 167 for producing antibodies.
- 170. A method of using the protein as claimed in claim 168 for producing antibodies.